

WSDOT NORTHWEST REGION CHANNELIZATION PLAN CHECKLIST

Channelization plans are design documents that show the relationship between the features and geometric elements that combine to form the highway. Similar to right of way plans, channelization plans are used by anyone looking for geometric information after construction is completed. Channelization plans are preserved under RCW Title 40, Public documents, records, and publications and permanently archived on mylar. Since channelization plans are design documents they are only valid for three (3) years after approval (Design Manual 330.08). Channelization plans and the associated design variances that are older than three years old must be reevaluated for conformance to current standards.

Note to Local Agencies and Developers: Channelization plan approval is not project approval. The approved channelization plan is only one part of the approval and permitting process.

GENERAL REQUIREMENTS FOR THE CHANNELIZATION PLAN SET

- ☐ Use the latest updates of the WSDOT Design Manual M22-01 (DM), the Manual of Uniform Traffic Control Devices (MUTCD), and the Local Agency Guidelines Manual M36-63, where appropriate. Use terminology specified in the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, WSDOT Standard Plans M41-10, and the WSDOT Design Manual.
- ☐ Use plan scale of not less than 1" = 60' for 11" x 17" plots and not less than 1" = 30' for the final full size 22"x34" mylar plot. Freeway and Interstate plans may use a different scale **with the written approval** of the Area Traffic Engineer.
- ☐ Show the final channelization where improvements are new in full tone. Include stations and dimensions of all channelization features where the new improvement ties in to the existing roadway.
- ☐ Show existing channelization information in 80% gray tone OR using the dashed line styles as shown in the latest version of the Plans Preparation Manual (M 22-31)
- ☐ Show at least 300' of existing channelization beyond the improvement limits on the state highway(s). On intersecting roads (public or private) and commercial and multi-residential road approaches, show 100' of existing or new channelization beyond the radius returns or to the limited access limits, which ever is greater.
- ☐ Provide two half size (11"x 17") original plots of the channelization plan(s). Scanned images and photocopied plan sheets will not be accepted. One full size (22" x 34") mylar stamped and signed by the design engineer is required for final approval. Per WAC 193-23-020, plans should be marked "PRELIMINARY" until the final signed plan is submitted. See Channelization Plan Review Process and Final Approval below.
- ☐ Submit related Design Variance (Corridor or project analyses, deviations, evaluate upgrades, design exceptions, and justifications) requests to the Area Design Reviewer for review and approval. Channelization plans cannot be approved until all design variances are approved.
- ☐ Submit any calendar actions and traffic signal permit applications for Northwest Region Traffic Engineer's approval. Calendar actions and proposed traffic signals should be discussed with the Area Traffic Engineer early in the design process. Do not wait until the channelization plan submittal to discuss these items. Calendar actions are required for things such as speed limit changes and turning movement restrictions (no u-turns, no right turn on red). Note: a calendar action is a change to something written into law.

CHANNELIZATION PLAN SHEETS

Channelization plan sheets show the highway in plan view. The plan should show sufficient width to show all roadway features and any features outside the roadway prism that may impact the roadway users.

- ☐ Channelization plans shall show only the final channelization. The plans shall not show any materials, signing, utilities, landscaping, topography, or electrical and signal appurtenances.
- ☐ Alignment centerlines for all roadways including all intersecting streets. This includes private roads, large commercial approaches, and multi-family road approaches. Centerline line type shall follow the construction centerline requirements for *Highway Alignment to be Constructed* as shown in the Plans Preparation Manual (M 22-31). Include 100 ft and/or 50 ft major stations. Stationing shall follow the direction of increasing milepost, read left to right.
- ☐ Highway, Street, and alignment names. State routes with local names should include both names. The local name should be shown in parenthesis. SR 999 (Local Rd.) Follow the construction centerline requirements for *CLine PSE New SR No Text* as shown in the Plans Preparation Manual (M 22-31) Section 5, CADD Standards for MicroStation using Expanded Levels (<http://www.wsdot.wa.gov/publications/manuals/fulltext/M22-31/CADD.pdf>)

- ☐ Bearings of all alignment centerlines.
- ☐ Intersection angles labeled for all intersecting streets and ramps. See Channelization Elements sheet.
- ☐ Intersection alignment centerline equations. Include the milepost of the intersection.
- ☐ Begin and End Project callouts for all State Routes. Include both the milepost and alignment station. Note, the limits of channelization improvements are the limits of the new channelization and may not be the same as the project limits. See Channelization Elements sheet.
- ☐ Channelization-related Design Variance callouts and notes. See Channelization Elements sheet.
- ☐ Curve data for each alignment curve (P.I. station, curve delta, curve radius, tangent, length, superelevation, spiral data (if applicable), and curve design speed). See the Channelization Elements sheet.
- ☐ Final right of way and limited access lines. Also show right of way easements for channelization features. See Section 3 of the Plans Preparation Manual (M 22-31) for line style requirements.
- ☐ Label edge of traveled way and edge of pavement lines.
- ☐ Existing and new raised curbing, barrier, guardrail, rumble strips and pedestrian rail.
- ☐ Widths of through lanes, turn lanes, medians, shoulders, sidewalks, and planter strips / amenity zones. Where a feature line does not follow the alignment centerline, label widths on both sides of the centerline. Measurements are made to the face of curb or center of pavement marking. Use names as shown in section 8-22 to the Standard Specifications for Road, Bridge, and Municipal Construction (M41-10) and section M of the Standard Plans for Road, Bridge, and Municipal Construction (M 21-01). Include line color but not material types. (i.e. white wide line, yellow edge line, white dotted extension line, stop line, traffic arrow)
- ☐ Stations and offsets to the center of pavement marking text and symbols such as turn lane arrows, HOV symbols, and bicycle lane markings.
- ☐ Begin and end stations of right and left turn storage lanes. Indicate the provided storage lengths. See the Channelization Elements sheet for measurement method.
- ☐ Begin and end stations with offsets for all lane transitions, channelization and pavement tapers. Include the taper rate (x.x:1) in both the begin and end taper call outs.
- ☐ Label the turn radii (all right and left) for intersections, private road approaches, and commercial and multi-residential road approaches. See the Channelization Elements sheet.
- ☐ Show all existing and new sidewalk ramps. For projects with sidewalk ramp(s), include a general note on the plans stating that all sidewalk ramps shall meet current ADA requirements. Show the location of the truncated domes on the sidewalk ramp(s). See the Channelization Elements sheet.
- ☐ Show and label the locations of transit stops
- ☐ **Design Data Box**, including all of the following information for the state highway(s), intersecting roads (public or private) and commercial and multi-residential road approaches. The preferred location of the Design Data Box is the first channelization plan sheet. See the Channelization Elements sheet for format.
 - ☐ Functional Class
 - ☐ Highway Design Class
 - ☐ NHS Status
 - ☐ Design Matrix and Line
 - ☐ Access Control or Managed Access Class
 - ☐ Design Vehicle
 - ☐ Posted and Design Speeds
 - ☐ Terrain
 - ☐ Truck Percentage
- ☐ Include a vicinity map and a sheet key for larger (10 sheets or more) or complex (interchanges) projects. See the Channelization Elements sheet.

SR: _____ Project Title: _____ Submittal Date: _____

City/County: _____ Begin MP: _____ End MP: _____ Page 3 of 3

The following items are to be included on every plan sheet:

- ☐ A title block with the Project Title w/ State Route Number(s), Begin & End Mileposts, City and County, submittal Date and Page Number. See the Channelization Elements sheet for the specific format.
- ☐ North arrow. See the Plans Preparation Manual (M 22-31) Section 5, CADD Standards for MicroStation using Expanded Levels (<http://www.wsdot.wa.gov/publications/manuals/fulltext/M22-31/CADD.pdf>), General Sheet Items section.
- ☐ Scale bar. The preferred location is at the bottom of the sheet near the WSDOT approval signature block.
- ☐ Section, Township, and Range. See the Channelization Elements sheet for specific format.
- ☐ WSDOT approval signature block. The preferred (not required) location is at the bottom of the sheet in the right corner. See Channelization Elements sheet for the signature block detail. Not required on plan sheets that do not show new channelization on state routes.

DETAIL SHEETS

Details supplement portions of the channelization plans that can not be adequately shown on the channelization plan sheets. Detail sheets are to be stamped and signed by the engineer. The detail sheets also need to include the WSDOT approval signature block.

- ☐ Details of all raised & striped traffic islands. At a minimum, details should include: offsets of key locations from reference lines, shy distances to curbs, curb type, any curbing or striped radii, angle points, and all sidewalk ramps or barrier-free passageways. Also label the projected square footage of islands. See Design Manual (M22-01) Chapter 910.
- ☐ Details of curb extensions (bulb outs). Include begin and end transition stations and offsets as well as curve radii.

ROADWAY SECTIONS

Roadway sections are a required part of the channelization plans. However, they are informational only and should not have the WSDOT signature block. Roadway sections should show lane, shoulder, planter / amenity zone, traffic islands, shy to curb, raised curb (include type), barrier, or guardrail and sidewalk widths. The roadway sections should also show alignment centerline, ditches (slopes labeled), cut and fill slopes, slope rounding and right of way lines. Materials and material depths should not be shown. If they are shown then they should not be labeled. References to construction methods should not be included. Roadway sections should be separate sheets at the end of the channelization plan set. The roadway sections may be placed on the plan sheets if sufficient room is available. Note: all widths measured to curbing are measured to the face of curb and not the center of curb.

- ☐ Typical roadway. Where a feature line does not follow the alignment centerline, label widths on both sides of the centerline.

CHANNELIZATION PLAN REVIEW PROCESS AND FINAL APPROVAL

The channelization plan review process is typically an iterative process. The first submittal is reviewed by an Area Traffic Analyst, the Area Design Reviewer, and several operations groups within Traffic. The first review usually takes the longest time due to the number of groups reviewing the plans. Comments generated from the first review are sent to the designer. The designer addresses the comments and a new channelization plan is submitted for review. The review and comment process is repeated until all issues are resolved. Keep in mind that changes made could generate additional comments if quality control and Design Manual guidance is not followed.

After the plans have been reviewed, all the issues have been resolved, and all design variances have been approved, a full size mylar plan will be requested. The mylar plan must be plotted on full size sheets (22" x 34") and stamped and signed by the design engineer. The mylar plan is then sent to the Traffic Engineer for Area Operations for review and signature. Following that the plan is then sent to the Area Engineering Manager for review and signature. Half size paper copies of the approved plan are made and the signed mylar plan is archived.

- ☐ PE stamped, signed, and dated. Only required for final mylar submittal. PE stamps should be located in the title block of each plan and detail sheet

Prepared by: _____ Initials: _____